

not mentioned in the descriptions: elements 48, 50, 52, 46 and 64 of Figure 1B.

It is respectfully submitted that the revised specification and proposed drawing changes overcome the aforementioned objections.

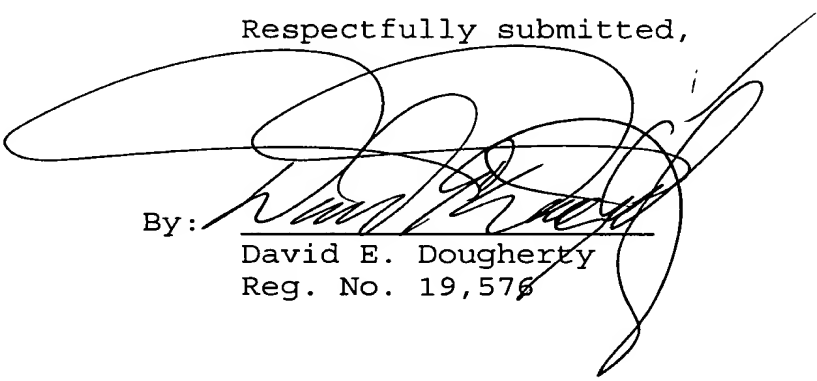
Claims 1-3 were rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In making that rejection, the Examiner questioned "...does the means for setting really set ("setting" on line 10) prescribed allowable environmental condition data. Applicant has rewritten claim 1 to overcome this as well as the other objections to claims 1-3. Accordingly, it is respectfully submitted that claims 1-3 are now in proper form for allowance.

Since all of the claims are now in proper form and clearly and patentably distinguished over the cited art, prompt, favorable action is earnestly solicited. It is also respectfully requested that if this amendment does not place the case in condition for allowance, that the Examiner place a call to applicant's attorney so that any issues may be immediately resolved.

Respectfully submitted,

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Date

By:


David E. Dougherty
Reg. No. 19,576

David E. Dougherty
One Skyline Place, Suite 1404
5205 Louisbourg Pike
Falls Church, VA 22041
Telephone: 703-845-0758
Facsimile: 703-575-2707

ABSTRACT

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A system for monitoring the behavior and environmental conditions of a high precision electronic apparatus comprising a measuring device section (M) including a plurality of sensors (12, 13, 14, 15, 16 and 17) arranged around said high precision electronic apparatus (P) which is mounted on a vibration preventing mount (B) for detecting environmental conditions as analog data signals, and means for filtering and amplifying each of said analog data signals (20, 21 and 22), and a computer system section (C) connected with said measuring device section (M) having an A/D converter (32) for converting said analog data signals into digital data signals, a data collection circuit (34) for collecting said digital data, means (4) for recording and setting prescribed allowable environmental condition data, means (42) for comparing said allowable environmental condition data with said digital data, means (46) for producing warning signal if abnormalities between said allowable environmental condition data and said digital data obtained in operation of said apparatus, a First Fourier Transform (FFT) analyzer (38) for converting said digital data so as to display as a graph on a monitor (44), a read-only (48) for storing said digital data, means (50) for calculating fluctuation of said magnetic flux data, means (52) for calculating fluctuation of said vibration data, and means (54) for storing said fluctuation of said magnetic flux and vibration data as temporal data.

APPENDIX A

2/5/02

--These first and second real-time data signals I, II are respectively stored in a hard disk 36 as the temporal data which may be displayed on a hardware monitor 44, if necessary.

The first and second real-time data signals I, II are compared with allowable operation data by a comparator 40. And a result of the comparison of the real-time data is interpreted in an interpreter 42 and displayed on the monitor 44. If the result of the comparison is within 80% of the allowable data, an indicator 46 shows in the blue light, but if not, the light will turn to red.

The latest first and second real-time data I, II are respectively stored in a read-only memory 48, the magnetic field data in the first and second real-time data I, II are transferred to a calculator 52 to inspect variation thereof, the data of the temperature and wind speed which are stored in the read-only memory 48 are sent to a temporal data renewal device 54, and the vibration and noise data are processed by a First Fourier Transform (FFT) analyzer 52, and then these data are sent to the temporal date renewal device 54 so as to update them. Fluctuation in the magnetic flux data is calculated by a device 50 and this data is sent to the temporal data renewal device 54.--

divided into DC component and AC component.

The amplitude of each of fluctuations of analog data signals received by the sound level meter 20 flux meter 21 and vibration meter 22 is converted into a definite amplitude of a given duration, and transmitted to a terminal 30 of the computer system section C together with the output trigger signals from the main electronic apparatus P which show the behavior thereof.

These analog signals entered into the computer system section C are converted into digital signals by an A/D converter 32 and transmitted to a data accumulator 34 by which the data signals of flux, temperature and wind speed are summarized as a first real-time data I and the data signals of vibration and sound or noise are summarized as a second real-time data II.

These first and second real-time data signals I, II are respectively stored in a hard desk 36 as the temporal data which may be displayed on a hardware monitor ⁴⁴[37] if necessary.

The first and second real-time data signals I, II are compared with allowable operation data by a comparator ⁴⁰[38]. And a result of the comparison of the real-time data with allowable data is interpreted in an interpreter ⁴²[39] and displayed on the monitor ⁴⁴37. If the result of the comparison is within 80 % of the allowable data, an indicator 40 shows it in blue light, but if not, the light will turn to red.

The latest first and second real-time data I, II are respectively stored in a read-only memory ⁴⁸41, the magnetic field data in the first and second real-time data I, II are transferred to a calculator ⁵²42 to inspect variation thereof, the data of the temperature and wind speed which are stored in the ready-only memory ⁴⁸41 are sent to a temporal data renewal device ⁵⁴43, and the vibration and noise data are processed by a

Fast Fourier Transform (FFT) analyzer ^{52.} 44, and then these data are sent to the temporal data renewal ^{device 54} [circuit 43] so as to update them. *

As stated in the above, the latest data which are measured with respect to the behavior and environment conditions of the main apparatus P may be renewed.

* f instructions in the magnetic flux data is calculated by a device 50 and this data is sent to the temporal data renewal device

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FIG. 1A

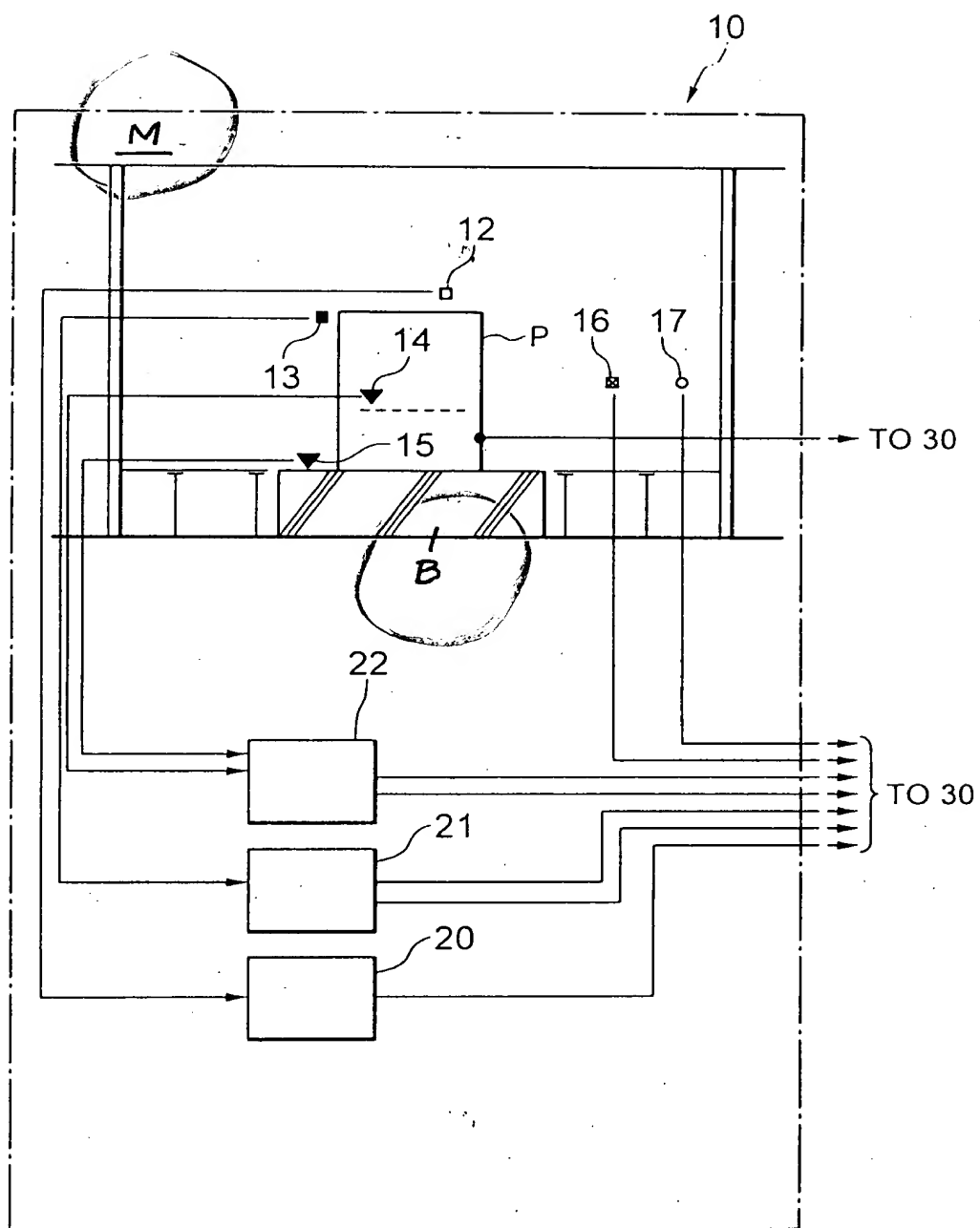


FIG. 1B

